

Amendments to the Specification

Please replace the paragraph beginning at page 3, line 6, with the following rewritten paragraph:

Bi --The surface imprints are useful for capturing, isolating, detecting, analyzing and quantifying potentially any target molecule. Structurally, the template molecule can be identical to or similar to the target molecule. In addition, the template molecule can correspond to a portion of a larger molecule. A surface imprint of a template molecule that corresponds to a portion of a target molecule is particularly useful when the target molecule is a macromolecule. Template molecules that correspond to portions of macromolecules are described in detail in copending Application Serial No. 09/507,300, filed concurrently herewith, which is hereby incorporated by reference in its entirety. --

Please replace the paragraph beginning at page 3, line 15, with the following rewritten paragraph:

hy -- A template molecule that corresponds to a target molecule or to a portion of a target molecule is most useful for capturing a known target molecule. However, as will be discussed more thoroughly below, an important aspect of the invention includes the ability to use the imprint compositions of the invention to isolate novel molecules from complex mixtures and/or samples. In this embodiment, a template molecule can have a structure that does not necessarily correspond to a portion of any known molecule. For instance, a template molecule could be selected from a combinatorial library. For macromolecular targets, a template molecule could have a structure that corresponds to a portion of a consensus sequence derived from a family of macromolecules. Alternatively, a template molecule might also have a random structure. A molecular imprint of a template molecule can bind a novel macromolecule if the template molecule corresponds to a portion of the novel macromolecule. An array of imprints of template molecules can be used to rapidly screen a mixture for novel macromolecules such as novel polypeptides. When the template molecules are biological polymers such as peptides, an array of

imprints of the complete set of template molecules of a defined number of monomer amino acids can be used to capture most or all of the polypeptides of a mixture. Template molecules that do not necessarily correspond to a portion of any known macromolecule are described in detail in copending Application Serial No. 09/507,300, supra. --

Please replace the paragraph beginning at page 24, line 7, with the following rewritten paragraph:

-- If the target molecule is a macromolecule, a preferred template molecule corresponds to a portion of the macromolecule of interest. A template molecule "corresponds" to a portion of the macromolecule if it possesses the structural features of that portion of the macromolecule and substantially no other structural features of the macromolecule outside that portion. The template molecule can possess structural features of the macromolecule by way of structural identity with the portion of the macromolecule. Alternatively, the template molecule can possess structural features of the portion of the macromolecule by approximating or mimicking the structure of at least one structural moiety of the portion of the macromolecule. A detailed description of template molecules that correspond to portions of macromolecules are described in detail in copending application Serial No. 09/507,300, supra. --

Please replace the paragraph beginning at page 24, line 33, with the following rewritten paragraph:

-- In particular, template molecules of this embodiment are useful for preparing imprints that can capture a novel macromolecule. A novel macromolecule is a macromolecule for which limited or no structural or functional information is available. If any structural information is available, a molecular imprint can be prepared using a template molecule that corresponds to the portion of the available structural information as described above. The template molecule can also correspond to all of the available structural information. When no structural information is known about a macromolecule, but it is known to be functionally related to a known macromolecule, the template molecule can correspond to a portion of a macromolecule having similar function, the template molecule can correspond to a portion of a macromolecule with

174 similar function, or the template molecule can correspond to a consensus sequence of a family of macromolecules with similar function. In addition, for any novel macromolecule, even one for which no structural or functional information is available, a molecular imprint of a template molecule with a random structure might be able to capture the novel macromolecule. For example, an as yet unidentified macromolecule can be captured, isolated, detected, analyzed and identified from a complex sample with such a molecular imprint. Template molecules appropriate for creating surface imprints that can capture novel macromolecules are described in detail in copending Application Serial No. 09/507,300, supra. --

Please replace the paragraph beginning at page 32, line 26, with the following rewritten paragraph:

175 -- To create a surface imprint capable of binding the protein cytochrome c, a conjugate molecule corresponding in structure to the seven carboxy-terminal amino acids of cytochrome c was constructed. A template molecule was first designed having the amino acid sequence of the seven carboxy-terminal amino acids of horse heart cytochrome c polypeptide, LKKATNE (SEQ ID NO: 1). A seven amino acid sequence should be sufficiently unique to provide a surface imprint with specificity for cytochrome c. A peptide with the sequence LKKATNE (SEQ ID NO: 1) was synthesized by standard techniques. --

Please replace the paragraph beginning at page 32, line 33, with the following rewritten paragraph:

176 -- A conjugate molecule was then prepared with the LKKATNE (SEQ ID NO: 1) template molecule. Since LKKATNE (SEQ ID NO: 1) is a hydrophilic template molecule (see Kyte & Doolittle (1982), J. Mol. Biol. 157:105-132), palmitic acid was chosen as a hydrophobic tail molecule. Palmitic acid was linked to the amino-terminus of the LKKATNE (SEQ ID NO: 1) via an amide bond to form a palmitoyl-peptide conjugate molecule. --

Please replace the paragraph beginning at page 33, line 23, with the following rewritten paragraph:

b7
-- A control polymer was prepared by the same protocol using a control conjugate molecule prepared with a control template molecule corresponding to a portion of rabbit skeletal muscle myosin heavy chain. The amino acid sequence of the control template molecule, TKVISEE (SEQ ID NO: 2), is not found in the primary amino acid sequence of horse heart cytochrome c. A palmitic acid tail molecule was linked to the amino terminus of the control template molecule via an amide bond to generate the control conjugate molecule. --
